DOCUMENT RESUME

ED 027 389 VT 007 318

Resources for Teaching: Programed Instruction Community Problems Nursing Rounds. Report of a Conference for Nursing Instructors (Louisville, Kentucky, October 16-17, 1967).

National League for Nursing, New York, N.Y. Nursing Advisory Service.
Pub Date 68
Note-47p.
Available from-National League for Nursing, 10 Columbus Circle, New York, New York 10019 ($2.00).
EDRS Price MF-$0.25 HC Not Available from EDRS.
Descriptors-Community Involvement, *Conference Reports, Educational Resources, *Health Occupations Education, Nursing, *Programed Instruction, Program Evaluation, *Teaching Methods
Identifiers-*Conference for Nursing Instructors, Louisville Kentucky, October 16 and 17 1967

Representatives of 15 nursing programs participated in the conference conducted by the Nursing Advisory Service of the National League for Nursing and the National Tuberculosis and Respiratory Disease Association, with the Assistance of the Department of Baccalaureate and Higher Degree Programs of the National League for Nursing and cosponsored by the Kentucky Tuberculosis-Respiratory Disease Association. Speeches include "Programmed Instruction and Its Implications for Nursing Education" and "Critique of a Program" by Hessel Flitter, "The Community Problem" by Bernita Satchell, and "Nursing Rounds: A Method of Using a Patient as a Resource in Teaching" by Virginia C. Dericks. Group discussions and conference evaluations are summarized. (JK)

VT007318

C1

RESOURCES FOR TEACHING:

PROGRAMMED INSTRUCTION
COMMUNITY PROBLEMS
NURSING ROUNDS

National League for Nursing

1968

RESOURCES FOR TEACHING:

PROGRAMMED INSTRUCTION
COMMUNITY PROBLEMS
NURSING ROUNDS

Report of a Conference for Nursing Instructors Conducted by the Nursing Advisory Service of the National League for Nursing-National Tuberculosis and Respiratory Disease Association With the Assistance of the Department of Baccalaureate and Higher Degree Programs of NLN and Cosponsored by the Kentucky Tuberculosis-Respiratory Disease Association, Held at Louisville, Kentucky, on October 16-17, 1967.

Conference Chairman: Frances P. Koonz, R.N., M.A.
Director
Nursing Advisory Service of NLN-NTRDA

Resource Person: Elizabeth M. Fenlason, R.N., M.A.
Consultant in Nursing Education
Department of Baccalaureate and
Higher Degree Programs, NLN

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

NATIONAL LEAGUE FOR NURSING
Nursing Advisory Service of NLN-NTRDA
10 Columbus Circle, New York, New York 10019

1968

Code Number: 45-1330 Price: $2.00

Copyright, 1968, by

NATIONAL LEAGUE FOR NURSING

"PERMISSION TO REPRODUCE THIS COPYRIGHTED MATERIAL BY MICROFICHE ONLY HAS BEEN GRANTED BY [illegible] TO ERIC AND ORGANIZATIONS OPERATING UNDER AGREEMENTS WITH THE U. S. OFFICE OF EDUCATION. FURTHER REPRODUCTION OUTSIDE THE ERIC SYSTEM REQUIRES PERMISSION OF THE COPYRIGHT OWNER."

All rights reserved. This book, or parts thereof, must not be reproduced in any form without permission of the publisher.

PRINTED IN THE UNITED STATES OF AMERICA

CONTENTS

INTRODUCTION

The second conference for nursing instructors was held on October 16-17, 1967, at Stouffer's Inn, Louisville, Kentucky. Planning for the conference was a cooperative effort of the Nursing Advisory Service of NLN-NTA (now NLN-NTRDA) and the Department of Baccalaureate and Higher Degree Programs of NLN. The Kentucky TB-RD Association was a cosponsor of the conference.

Invitations to the second conference were limited to schools in the Mississippi Valley Tuberculosis Regional Conference area. The conference area includes the following states:

Illinois	Michigan
Indiana	Minnesota
Iowa	Missouri
Kansas	Nebraska
Kentucky	Ohio
Wisconsin	

Two additional states, North and South Dakota, were included. There are 44 NLN-accredited baccalaureate programs in nursing within these states. Each of these schools, through their respective deans, was invited to send one faculty member to the conference. Seventeen faculty members representing 15 schools of nursing with baccalaureate programs attended. (See Appendix A for school representation.)

A profile of the faculty according to major teaching area, educational preparation, and professional experience is included in Appendix B.

The resources selected for the conference were based on suggestions made by participants at the pilot conference, which was also held in Louisville, Kentucky, on October 14-15, 1966. One resource selected relates specifically to tuberculosis nursing, and the other two resources are applicable to the teaching of tuberculosis and/or respiratory disease nursing. A registration fee of five dollars covered the cost of materials sent to each participant prior to the conference and the cost of the final conference report.

PROGRAM

October 16-17, 1967

Monday, October 16

9:00--9:30 a.m.	Welcome	Richard E. Mardis, President, Kentucky TB-RD Association Mrs. Lucy A. Erwin, President, Kentucky League of Nursing
	Introduction to Conference	Frances P. Koonz, Director, Nursing Advisory Service of NLN-NTA
9:30--10:30 a.m.	Programmed Instruction	Dr. Hessel H. Flitter, Assistant Director, University of Kentucky College of Nursing
10:45--11:30 a.m.	Critique of a Program	Dr. Hessel H. Flitter
11:30--12:00 noon	Discussion	Elizabeth M. Fenlason, Moderator, Consultant in Nursing Education, Department of Baccalaureate and Higher Degree Programs, NLN
1:30--2:30 p.m.	The Community Problem	Mrs. Bernita M. Satchell, Assistant Professor, College of Nursing Arizona State University
2:30--2:45 p.m.	Discussion	
3:00--4:00 p.m.	Nursing Rounds	Virginia Dericks, Clinical Nursing Specialist, Department of Surgical Nursing, New York Hospital-Cornell Medical Center
4:00--4:15 p.m.	Discussion	
4:15--4:30 p.m.	Preparation for Second Day	Elizabeth M. Fenlason

Tuesday, October 17

9:15--9:30 a.m.	Organization for Work Sessions
9:30--11:15 a.m.	Developing Ideas for Resources; Conference Participants
11:15--12:15 p.m.	Presentations of Participants Discussion
12:15--12:45 p.m.	General Discussion and Summation of Conference
12:45--1:00 p.m.	Written Evaluation

INTRODUCTION TO CONFERENCE

Frances P. Koonz

The pilot conference for nursing instructors on the topic Resources for Teaching was held in Louisville, on October 14-15, 1966. Just as this conference is being conducted, so it was conducted by the Nursing Advisory Service of NLN-NTA with the assistance of the Department of Baccalaureate and Higher Degree Programs of NLN; it was cosponsored by the Kentucky TB-RD Association and the Mississippi Valley Tuberculosis Regional Conference group.

The pilot conference for nursing instructors was held in September of 1965 when the Advisory Committee of NAS recommended that NAS explore the possibility of holding an instructors conference in conjunction with a regional TB-RD meeting. The idea developed as a result of requests from nursing instructors, which were traced through records of minutes, correspondence, and accounts of staff field consultations, dating back to 1959. Since then, treatment for tuberculosis has changed, care of patients and families in general has changed, and the place for treatment has changed. The customary resource for teaching--the specialized tuberculosis hospital--was nc longer available or practical for many instructors. Further, new and broader interests had developed in the care of patients and families, which necessitated changes in typical teaching patterns in schools of nursing.

The pilot conference on Resources for Teaching utilized the critique method of presentation. An article, a booklet, a film, and a concept were presented to the conferees. A study of the final evaluations of the conferees indicated that a second conference, utilizing different types of resources, was desired.

Because the schools in the Mississippi Valley area in essence requested the second meeting and because the Kentucky TB-RD Association offered to be the cosponsor, NAS staff began last June to prepare for this second conference.

All faculty members attending are from NLN-accredited nursing schools offering baccalaureate programs. All of you are prepared teachers--a select group--and therefore, we, the conference staff, have great expectations. We will start you off. To present the program, we have persons expert in teaching in their fields. We will look at programmed instruction in general and at one program in particular. Two other resources included are the community problem and nursing rounds. Each of these presentations will be based upon the unique background and experience of an expert. Then it becomes your program, with opportunities for discussion after each presentation and small group discussions tomorrow. It is our hope that we will all learn, not only from the faculty but also from each other as we exchange ideas and experiences and as we discuss and evaluate the use of these resources in our own teaching programs. Remember, each of you represents an entire faculty and much of the success of this conference depends upon how you yourself utilize these teaching methods.

Inside the final program you received this morning, you will find a page for notes.

Frances P. Koonz is Director, Nursing Advisory Service of NLN-NTRDA.

This sheet has a special purpose; it is not intended for regular note-taking, but rather for you to jot down your thoughts evaluating the conference. It will help you in filling out the final evaluation form tomorrow at the close of our session.

You will notice, too, that at the back of the room we have some resource material for you to take and some for your perusal. We ask that you add to this display any resources you may have brought with you to share with the group.

PROGRAMMED INSTRUCTION AND ITS IMPLICATIONS FOR NURSING EDUCATION

Hessel H. Flitter

This morning, I should like to begin the conference on teaching resources by discussing with you a resource in teaching that has wide applicability to the education of both students and practitioners of nursing. This resource, called "programmed instruction," and sometimes "programmed learning," is essentially a method of presenting to a learner, knowledge that has a built-in assurance of the learner's learning. Generally, nursing has not made much use of this resource. I would venture a guess that this reticence is partly due to the lack of materials specifically prepared for nursing and partly because the resource is relatively new and looked upon by some as a fad. I believe that programmed instruction deserves a place in nursing education because the basis on which programmed instruction is built is sound. Programmed instruction is a method of organizing and presenting instructional materials in small logical steps so that the learner, working by himself, can progress from one step to the next, actively responding to each new item of learning and, by immediately being informed as to the accuracy and effectiveness of the response, can actually instruct himself in the subject being presented. To put this in more erudite terms, programmed instruction is a self-instructional, self-pacing, teaching-learning system, which insures that a learner who completes a program successfully will attain certain facts, knowledge, and understandings specified by the programmer.

Some educators have made the claim that programmed instruction is not new and that it is similar to lesson plans that they construct. While a lesson plan that is analytically and thoughtfully prepared is helpful in insuring the scope, sequence, and strategy a teacher will use in teaching a class, the lesson plan does not necessarily insure successful learning by a student. Programmed instruction does. Does the use of programmed instruction eliminate the teacher? Of course not. Its use must be planned by the teacher as part of the total teaching-learning process. The most important teaching resource is the teacher or, if you wish, the teacher-student interaction.

In the previous conference held here in Louisville last year, other teaching resources, such as the film, were considered. What are some of the teaching resources, in addition to the motion picture, that are available to us as teachers? A list would probably include among others the 16 mm. sound film, the 8 mm. single-concept film, filmstrips, slides, videotape, and audiotape. Are any or all of these programmed instruction? Do they meet the criteria for programmed instruction stated previously? That is, do they present material in small bits of information, involve the student actively in responding to questions about the information, give the student immediate confirmation about the accuracy of his response, go at the student's own pace? No, not in the usual form; but, with some ingenuity, any or all of these resources could be developed as programmed instruction. For example, a film could be prepared to present visually and audibly a

---

Hessel H. Flitter, Ed.D., is Professor and Assistant Dean, University of Kentucky College of Nursing, Lexington, Kentucky.

sequence of learning; questions about the sequence might then appear on the screen, and the student might be asked to respond to these in a booklet or on an answer sheet. After a given period of time, the correct response might appear on the screen, and the student might be given the opportunity of examining his response for accuracy. It is conceivable that an audiotape, a videotape, or a filmstrip might also be combined with printed materials and be programmed.

Generally, programmed instruction, in a narrow sense, has for the last five years become associated with the printed word, either in a textbook or a workbook format. This association, active from 1958 to about 1963, resulted largely from B.F. Skinner's work on learning theory. Skinner, a Harvard University psychologist, is the man who has been credited with doing most to further the use of the teaching machine in education. In an article published in 1958 in Science magazine, Skinner indicated that new knowledge about how learning takes place opens many opportunities for improving education through the use of teaching machines. Skinner, however, was not the first psychologist to advocate a teaching machine. In the 1920's, Sidney L. Pressey introduced machines for testing students rather than for teaching them. The machine presented students with questions. The students then pushed buttons to indicate their choice of an answer. The machine automatically scored and gave the students information as to their success on the examination.

Interestingly, E.L. Thorndike, the eminent educational psychologist at Columbia University, foresaw the use of the teaching machine as early as 1912. In his book Education, Thorndike stated:

> If, by a miracle of mechanical ingenuity, a book could be so arranged that only to him who had done what was directed on page one would page two become visible, and so on, much that now requires personal instruction could be managed by print. . . . A human being should not be wasted in doing what forty sheets of paper or two phonographs can do. Just because personal teaching is precious and can do what books and apparatus cannot, it should be saved for its peculiar work. The best teacher uses books and appliances as well as his own insight, sympathy, and magnetism.[1]

In 1967, much less emphasis is placed on teaching machines. Machines come in all shapes and sizes, but what is much more important than the machine itself is the quality of the programmed instruction it contains. Some research has been done on presentation of material by machine versus presentation by programmed textbook. Generally, results reported show little difference in effectiveness of one over the other. There is less chance of the student's jumping ahead and skipping parts of the program when a machine is used. In addition, the gadgetry of the machine may be a motivating factor for the student.

Whether presented by machine or text, the programmed information may be arranged in various ways. You experienced one way of arranging materials in your reading assignment Closed Drainage of the Chest. In this programmed text, information is presented and followed by multiple-choice questions; each answer choice is accompanied by the direction to turn to a specific page. If the wrong answer is chosen, the student is referred to a specific page for remedial work and is then returned to the original item and the original question to make the correct response; if the correct response is made the first time, the student is told so and is directed to the next item of information on the appropriate page. This type of programmed instruction, known as "branching," gives the student the opportunity of branching out to additional items of information

for remedial learning when an error is made. Those programs that do not allow for branching but that progress in a straight line from one item to the next are called "linear" programs.

Since you have experienced a branched type of program as part of your assignment for this conference, I have brought along a segment of a linear type of program. Try out this sequence for yourself, and note some of the differences between branched and linear programmed instruction.

The following statement appeared in a nursing textbook dealing with range of motion:

Extensor muscles act to increase the angle of a joint.

Flexor muscles act to decrease the angle of a joint.

Without looking back at this statement, can you describe these actions and associate them with the appropriate muscle groups? Probably not, unless you are already familiar with the facts.

Now go through the sample sequence of programmed instruction. At the end of the sequence, you should be able to describe the action of the two muscle groups. Answer each question before you look at the answer given at the right side of the page.

1. From a natural standing position, holding your left hand rigid, touch your fingertips to your left shoulder. As you do this, the forearm moves toward the arm. Motion at which joint allows you to move the forearm on the arm? (Check one) ☐ wrist ☐ shoulder ☐ elbow ☐ fingers	1. ☒ elbow
2. Remove the fingertips from the shoulder, and place the arm and forearm in a straight line at the side of the body. The angle of a straight line is 180 degrees. What is the degree of the angle of the elbow joint in this position?	2. 180 degrees
3. What is the largest angle possible at the elbow joint?	3. 180 degrees

4. What is the degree of the angle at the elbow joint when you raise the fingertips to the shoulder and bring the arm and forearm as close together as possible?	4. 0 degrees. This is correct if the joint closed completely. Since there is a small space between the arm and forearm, the angle is almost, but not quite, 0 degrees.
5. What is the smallest approximate angle possible at the elbow joint?	5. Almost 0 degrees
6. What is the range of motion in degrees (from lowest to highest) that is possible at the elbow joint?	6. From almost 0 degrees to 180 degrees
7. When you previously placed your fingertips on your shoulder, the action that took place at the elbow joint is called? (Check one) ☐ flexion ☐ extension	7. [x] flexion
8. You ☐ flexed or ☐ extended your arm?	8. [x] flexed
9. When you place the forearm and arm in a straight line, the motion is called ☐ flexion ☐ extension	9. [x] extension
10. The motion that makes the angle at the elbow joint smaller is called _____.	10. flexion
11. The motion that makes the angle at the elbow larger is called _____.	11. extension

12. If you move the forearm onto the arm from an angle of 120 degrees to an angle of 60 degrees, the motion at the elbow is called _____ .	12. flexion
13. Certain muscles are called flexors because the motion they produce is called _____.	13. flexion
14. Other muscles that produce extension are called _____ .	14. extensors
15. Flexor muscles act to: (Check one) ☐ increase ☐ decrease the angle at a joint.	15. [x] decrease
16. Extensor muscles act to: (Check one) ☐ increase ☐ decrease the angle at a joint.	16. [x] increase
17. Muscles that increase the angle at a joint are called _____; those that decrease the angle are called _____ .	17. extensors flexors
18. Write a brief statement stating the action on joints of flexor and extensor muscles.	18. Flexor muscles decrease the angle at a joint; extensor muscles increase the angle.

In addition to branched or linear programming, to lend novelty to the text and to prevent the student from looking ahead, successive information may be scrambled. A scrambled text results in "jumping about" on pages that are not in consecutive order. Illustrations may be presented as part of the text or placed in a separate booklet, with the advantage of not having to print the same illustration several times on different

pages of the text when the illustration is used repeatedly. Some booklets also contain charts and tables, and the supplemental booklets may then be referred to as panel books. Much ingenuity has been exhibited in the preparation of programmed texts. One type of presentation consists of printing on the upper half of each page straight through the text from cover to cover, then turning the book upside down and printing on what is then the upper half of each page. Some readers' reactions to books arranged in this manner have been those of annoyance and irritation. One can also find texts with split covers, folded pages, plastic overlays, and the like. I should like to paraphrase what I said previously about the teaching machine. It is not the style of the book or of the cover that is of vital importance, but, rather, what lies between the covers.

How does one go about developing a program? The most important first step is the same as in developing any plan for teaching. It is the setting down clearly and specifically of the behaviors that the learner is to acquire and that can be tested upon completion of the lesson or, as in this case, of the program. I cannot stress this step too much. Often a lesson or a program is prepared with only a vague goal in mind. Programs, either commercially prepared or teacher-made, must be built around specific, behaviorally defined, measurable terminal goals or objectives. Such clearly defined objectives give direction to the teacher or to the program writer. The objectives are also an important consideration when you as a faculty member are deciding upon the use of a commercially prepared program for your course. The objectives should be included in the preface to the program and should tell you specifically what the program can and cannot do. The objective should be stated clearly enough to help you in deciding whether or not the program will fit into the philosophy of the school and the objectives of the course you are teaching. One of the most useful books in writing objectives is that by Robert Mager, entitled Preparing Objectives for Programmed Instruction. He strongly advocates the use of action verbs. For example, instead of beginning the statement of an objective with the term "to understand," Mager suggests that there is more specific meaning in such behavioral terms as, "to write," "to list," or "given two problems, the learner must be able to differentiate." Objectives then, clearly stated, are of prime importance. Once the objectives are specified, an outline of the content and a plan of action for the logical presentation of sequences of subject matter follow. A final examination is also constructed to test achievement of the objectives.

The essential part of the development of any programmed instruction is the testing of the program on a sample of learners similar in characteristics to those for whom the program is intended. The aim of programmed instruction is perfect learning insofar as is possible. Therefore, those taking the program in the testing phases are asked to criticize what they find wrong with the program. An item may be ambiguous to a majority of those being tested. A change in a particular sequence may be suggested as "making more sense." Using the results of the testing, programs are revised as many as five or six times until 95 percent of those tested are successful on 95 percent of the items. Some commercial programmers state that the objective of perfection can be achieved in three or four testings.

The question is often raised as to whether or not a school or a teacher within a school should develop programmed instruction units. A well-prepared, high-quality program--one that has had its content validated by subject-matter specialists, its tasks analyzed by behavioral technologists, and has been written, edited, field-tested, rewritten, and printed--is quite expensive to produce. It is reported that some faculties that attempted to prepare programmed instruction units were discouraged by both the length of time involved in its preparation and the cost. It is estimated that it takes about 100 hours to

produce 1 hour of programmed instruction. Preparation of programmed instruction of quality generally requires a team of persons of varying skills. The essential members of such a programming team are: (1) Content Specialists. These are recognized experts in the content and objectives to be attained by learners. If the school prepares its own program, it probably has content specialists on the faculty. (2) Behavioral Analysts. These are generally behavioral scientists who analyze the objectives and the accompanying pertinent knowledge into task to be achieved by the learners. Schools preparing their own program may employ a behavioral technologist on a consultant basis to perform this analysis. (3) Programmers. These are writers employed by commercial firms that prepare programmed instruction. They are skilled in developing the short sequences into items or so-called frames on the basis of the analysis; they may be nurses with writing and teaching ability, for nurses and others can learn the art of writing frames. Workshops and college courses are offered in this field at some university centers. (4) Editors. These edit the unit in terms of readability, accuracy of language, and style. (5) Artists and Draftsmen. These are persons skilled in preparing illustrations and tables that will appear in the program. They work closely with the programmers and content specialists. (6) Typists. These prepare preliminary forms and put the final form of the program into shape for publication. (7) Test Subjects. These are a sample of learners similar in characteristics to those of the learners for whom the program is intended. The test subjects take preliminary forms of the program. Their responses to the program are used as the basis for revision. (8) An Administrator. This person must have the ability to coordinate the various parts in the production of the program. In a commercial firm, the administrator is concerned with this activity only. In a school, it is inconceivable that a faculty member could assume this activity unless relieved of other responsibilities.

By the use of this kind of a team, one commercial firm reports that 1 hour of programmed instruction costs from $1,000 to $3,000 to produce. While this is the cost to the producer, the 1-hour unit may be priced generally from $3 to $10 for a single copy. Because the initial cost of production is high, it is generally necessary for a school to seek grant support to employ competent members for the programming team.

Considering the high cost of programming instruction in terms of both time and money, a question is often raised as to its effectiveness. Research, for the most part outside nursing, has been done to determine whether or not programmed instruction produces better results than other methods of instruction. In almost every case the reports are that it either produces better results or teaches at least as well as other methods do. In the latter case, the statement is usually made that programmed instruction has many advantages over ordinary instruction in that it assures uniform teaching, it captures the expertise of a master teacher, which can be shared by many students, and it offers the student an opportunity to learn at his own rate and at a time convenient for him.

You as a faculty member may not be in the position to do controlled experiments with programmed instruction. However, you may be able to test the effectiveness of programmed instruction in several ways. One of these is by administering a pre- and post-test and then measuring student gain. This is sometimes called absolute learner gain or achievement. I am sure that you can visualize the possible pitfalls of this method--an extremely difficult pre-test followed by an extremely easy post-test may result in tremendous gains by students, but these gains could hardly be called valid. Another way of testing effectiveness, but one that may be more difficult, is to develop a comparative study comparing the use of programmed instruction with other teaching methods. There

are limitations to such studies also, and one needs to be sure that the conclusions drawn from the study are the result of the different methods of teaching only, not of other extraneous factors.

Perhaps a more specific test of effectiveness is that of controlled behavior. To illustrate this point, you may know that Dean Hinsvark, of the College of Nursing of the University of South Dakota, prepared a program for her students on threading needles in the operating room. Any skill-oriented program such as this can be tested by the performance of the learner. Students who exhibited the correct behavior in threading the needles, at the correct time, within a specific time limit, might be said to have effectively learned from this program.

Lastly and certainly a difficult-to-perceive test of effectiveness is the change in attitude on the part of students toward responsibility for their own learning. Some studies outside nursing show that students took a higher degree of responsibility for their own achievement when much of the learning was by programmed instruction. This would certainly be a challenging study to develop in nursing education.

In closing, I would like to summarize for you some of the contributions that I believe programmed instruction makes to the teaching-learning process in general:

1. Programmed instruction offers a systematic approach to teaching and learning based on learning theory. Specifically, the learner becomes actively involved; he makes a unique response to a stimulus; he receives an effective confirmation to a response; and he learns the consequences of his action.
2. Programmed instruction provides an explicit set of arrangements for transmission of information and development of skills or attitudes. Not everyone would agree on the effectiveness of programmed instruction in developing attitudes, but most would agree with these factors: (a) the instruction is specifically and behaviorally defined; (b) the learners for whom the instruction is intended are clearly identified in terms of their abilities, their achievement levels, and their prior educational experiences; (c) content is validated by content specialists; (d) appropriate sequences of information and the size and readability of items are tested out on a sample of learners with characteristics similar to those learners for whom the program is intended; and (e) the program is reconstructed and retested as often as is necessary until a predetermined criterion of 95 percent of success by 95 percent of learners is achieved.
3. Programmed instruction provides for measurement, evaluation, and improvement of instructional materials. In conventional methods of teaching we are often concerned with why students do not do well on a particular test. We may ask what went wrong; why students did not seem to listen or read, et cetera. The nature of programmed instruction is such that it gives us a record that permits analysis of what went wrong, at least of what went wrong with the work of the student and of the instructor who developed the program. I think it would be well to paraphrase Skinner at this point: If the learner does not learn, we do not blame him; rather, we revise the program.

Finally, I hope I have not created the impression that programmed instruction is a

panacea. It certainly is not, but what it is is a powerful teaching tool prepared through a process that is goal-directed, logically presented, and content measurable.

Reference

1. E.L. Thorndike. Education, New York, Macmillan, 1912, pp. 165-167.

BIBLIOGRAPHY

Articles on Nursing Programming

Craytor, J.K., and Lysaught, J.P. "Programmed Instruction in Nursing Education: A Trial Use." Nurs. Research 13:323, fall 1964. Report of a controlled study using programmed materials in radiation therapy for nursing students. Eighty-one subjects participated. Effective and efficient learning results were achieved. Some evidence of reduced range in achievement was reported.

Geis, G.L., and Anderson, M.C. "Programmed Instruction in Nursing Education." Nurs. Outlook 11: Part I, Aug. 1963; Part II, Sept. 1963. A two-part paper describing fundamental aspects of programmed instruction and relating it to the concerns of nursing education.

Koehler, M.L. "Programmed Instruction--Potential Uses in Nursing." Hosp. Topics 41:48, Aug. 1963. An introductory discussion to a series of reports on programs utilized for nursing instruction.(See Hinsvark and Seedor.)

Mager, R. Preparing Objectives for Programmed Instruction. San Francisco, Fearon, 1962.

Seedor, M.M. "Programmed Instruction for a Unit on Asepsis." Hosp. Topics 41:50, Aug. 1963. Report on the development of a programmed unit for community college nursing students.

Skiff, A.W. "Programmed Instruction and Patient Teaching." Amer. J. Public Health 55:409, Mar. 1965. A discussion of results obtained in the use of self-instructional materials for patient management of health problems.

Programmed Units in Nursing

Anderson, M.C. Basic Patient Care. Vol. I. Philadelphia, Saunders, 1965. Linear program. This is the first volume of a programmed course in nursing fundamentals.

_____. Basic Nursing Techniques. Vol. II. Philadelphia, Saunders, 1966. Linear program.

Cherescavich, G., and Fagen, C. "Anxiety: Recognition and Intervention." Amer. J. Nurs. 65:9:129, Sept. 1965. Linear program for nurses. Developed with Basic Systems, Inc.

The Female Reproductive System. New York, Basic Systems, Inc. Linear program for pharmacists.

Ferster, C. Arithmetic for Nurses. New York, Springer, 1965. Linear program for nurses and technicians.

Keane, C., and Fletcher, S. Drugs and Solutions: A Programmed Introduction for Nurses. Philadelphia, Saunders, 1965. Linear program for nurses.

Lipsey, S. Mathematics for Nursing Science: A Programmed Review. New York, Wiley, 1965. Linear program for nurses.

Malcolm, B., and Bielski, M. "Recognizing Signs of Internal Hemorrhage." Amer. J. Nurs. 65:12:119, Dec. 1965. Linear program for nurses. Developed with Basic Systems, Inc.

Malcolm, B., and Glor, B. "Correcting Common Errors in Blood Pressure Measurement." Amer. J. Nurs. 65:10:133, Oct. 1965. Linear program for nurses. Developed with Basic Systems, Inc.

Malcolm, B., and Miller, M. "Intravenous Infusion of Vasopressors." Amer. J. Nurs. 65:11:129, Nov. 1965. Linear program for nurses. Developed with Basic Systems, Inc.

Sackheim, G.I., and Robins, L. Programmed Mathematics for Nurses. New York, Macmillan, 1964. Linear program.

Schramm, Wilbur, ed. The Research on Programmed Instruction, An Annotated Bibliography. Washington, D.C., U.S. Dept. of Health, Education, and Welfare, Office of Education, Publication No. FS5. 234:34034, 1964.

Seedor, M.M. Aids to Diagnosis: A Programmed Unit in Fundamentals of Nursing. New York, Teachers College, Columbia University, 1964. Branching program.

_____. Inhalation Therapy: A Programmed Unit in Fundamentals of Nursing. New York, Teachers College, Columbia University, 1965. Branching program.

_____. Introduction to Asepsis: A Programmed Unit in Fundamentals of Nursing. New York, Teachers College, Columbia University, 1963. Branching program.

Wilcox, J. Blood Pressure Measurement: A Programmed Notebook for Nurses. (PHS Publication #1191.) Washington, D.C. U.S. Department of Health, Education, and Welfare, 1964. Modified linear program for nurses.

CRITIQUE OF A PROGRAM

Hessel H. Flitter

Before adopting a programmed textbook as a teaching resource, a teacher will want to take certain steps to insure that the program will be helpful to both the students and the teacher. Most important perhaps is that the teacher herself experience the program directly. All of you have had such an experience before attending this conference when you took the program "Closed Drainage of the Chest." Only by going through a program and experiencing firsthand what students will find in the program will you, as a teacher, feel confident about incorporating the knowledge offered by the program into a unit or course. This is somewhat the same as reading through a textbook that is being considered for adoption in a course or previewing a film, a filmstrip, or a videotape that is planned for use as a teaching resource. There is one difference, however. Since a program has presumably been pretested, the reviewer will want to know the characteristics of the students on whom the program was tested.

To safeguard the user of a program, a joint committee of the American Psychological Association, the Association of Educational Research, and the National Education Association's Department of Audiovisual Instruction issued a statement urging all producers of programs to prepare an accompanying manual of information for distribution to users with each program. I do not know of one commercially-prepared program that is accompanied by all the data needed by the user to make a decision. If all of us demanded this, however, publishers might realize its importance and act accordingly. The program manual should be somewhat similar to the manual of information that accompanies every standardized test. The manual should include in specific behavioral terms what the objectives or goals of the program are, the educational level of students or practitioners for whom it is intended, the specific prerequisite content on which the program is based, the characteristics of the students on whom the program was tested, and the results of the testing process. In addition, some information should be given as to the average length of time that it took those tested to complete the program, the nature of the pre- and post-tests, and their standardization. Even with this information, the teacher will want to ask herself whether the program fits into the philosophy and objectives of the program or the specific course for which the program is intended. Questions the teacher will want to ask should include the following: Does the program cover appropriate topics? Does it develop appropriate skills or knowledge? Is it at the appropriate difficulty level? How well will the program apply in my own situation? Are the conditions under which the program was tested relevant to my situation? How expensive is it in relation to what can be achieved by its use?

With these questions in mind, let us consider specifically the program "Closed Drainage of the Chest," which was developed by the United States Public Health Service. Was there an accompanying manual? No, there was not. The manual itself is not really as important as the information it should contain. The information could be included in the preface at the front of the program instead of in a separate document. Was any such information given to the reader? Yes, some information was given. For example, we learned that the program was intended for nurses in hospitals. Did the authors tell us anything more about these nurses? No, they did not. Even though this information is

lacking, can the program be used for basic students? Yes, if we read the content through and decide whether or not the content fits into a unit of instruction in our own program. If we accept the program, we still need to decide when it would be most appropriate to use. A unit of self-instruction such as this may be used immediately before an actual demonstration of closed chest drainage in the classroom or nursing laboratory. How you use the program, however, depends naturally on your own situation.

Was any information given about the students on whom the program was tested? No information was given about the students, the number of times the program was tested, or the success encountered by those on whom the program was tested. In fact, it is not known whether or not the program was tested with hospital staff nurses at all.

Are the objectives specifically stated in behavioral terms? To some degree they are. The objectives are clear, but rather global in nature. After experiencing the program myself, it seems to me that an objective such as the one stated: "The nurse will be able to describe features of normal anatomy and physiology which are pertinent to closed drainage of the chest" might be stated more specifically as follows: "The nurse will be able to answer questions in an examination related to features of normal anatomy and physiology, etc." Objective number four is quite specific. It states that the nurse should be able to "list the essential elements of related nursing care," but, I do not recall in the review of the sections (the post-tests) any question asking the student to make such a list. As to the objective labeled "Hopes," I cannot help but wonder whether it might not have been more appropriate for the authors to have included a paragraph instead. Such a paragraph might have indicated that those who are successful in attaining knowledge about closed drainage of the chest are probably more apt to do the right thing at the right time than those who do not know the underlying basis for action. This may be a bias on my part, but it seems to me that goals are either capable of being achieved with self-instruction or they are not.

Another question to consider is the difficulty level of the program. This program seemed to be at an appropriate difficulty level. Once again, however, in terms of its intended usage by nurses in hospitals, more information about the testing of the difficulty level would have been useful to me as a reviewer of the program.

The question about format is an appropriate one to discuss. The use of a scrambled textbook may produce various reactions. Some users become irritated by the "jumping effect." From your reactions, it would seem to me that while annoying at first, the scrambling did not bother you particularly.

The self-pacing feature, whereby the student can take the review questions or post-test at the end of each section and can, if successful, omit that section and move on to the next, is a sound one. The pitfall here, however, may be that only certain words or phrases that have been programmed are acceptable to the authors. In this particular program it was difficult to decide whether alternate answers to those given would be acceptable. I would doubt, for instance, that a student could answer Item 6 on Page 76 in these exact words, "Molecules create pressure by colliding with a surface," unless she had taken the program. The same comment applies to Item 8, in which the term "pulling force" is the acceptable answer. A difficult pretest or one that is rigid in its acceptability of correct answers forces a student to take a section of a program. I cannot say with certainty, however, that this was the intent of the authors of this program.

Were the illustrations useful in clarifying concepts? They seemed to me to be particularly helpful. In some cases they may have been oversimplified, but they visualized clearly what might otherwise have been a difficult concept to express verbally. In one case I was somewhat concerned that oversimplification may have given an erroneous

idea. This was the concept that pressure is due to movement of molecules. One would have to go more deeply into the concepts related to pressure and to heat in order to realize that while the statement is partially true, the movement of molecules alone does not necessarily produce pressure.

In terms of economics, the program is arranged so that students do not have to write in the book, except for the review questions, which can be reproduced on separate sheets. This allows the book to be used by different students.

In general, this was a well-sequenced program, clearly written and easily understood. My one reservation would be whether or not it really is aimed at the general objective: "To help the registered nurse in the hospital improve the quality of nursing care she directs, as well as she gives, to the patient who has been placed on a closed chest drainage system." An entire program on directing care would be extremely useful to nursing.

THE COMMUNITY PROBLEM AS A RESOURCE FOR TEACHING

Bernita M. Satchell

I am convinced that there are many community health action programs and/or projects that might offer valuable and meaningful experience for students, especially in public health nursing. "Saturation 93" was such a program. I am assuming that you are familiar with the report. Therefore, I would like first to make some more general remarks and then come back to "Saturation 93" just prior to our discussion period.

I would like to share with you some thoughts that might apply to the use of different community situations as a resource for teaching. The public health nursing faculty at the College of Nursing at Arizona State University has done a considerable amount of brainstorming about this.

We keep a certain amount of core content relatively stable in our courses and curriculum, but we have tried different approaches and instituted innovations every year for the past five years. This has involved careful evaluation on the part of faculty themselves and among students each year. It is a lot of hard work, but we think it is good; it is our way of trying to keep up with the changes in the community.

In order to discuss some major points, let me summarize a few remarks under five headings: (1) Rationale; (2) Essential Steps; (3) Advantages; (4) Possible Resources; and (5) Disadvantages and Problems.

Let us assume your community, or mine, has a health problem meriting community action. You believe that it would be a good experience for students to be involved in. How do you make it educationally sound? Where do you begin?

Let us say that it is a project being planned by several community agencies, such as "Saturation 93." It really could be any of a number of kinds of community action, such as mass- or multiscreening, casefinding, or a health education project. Tuberculosis casefinding programs are so common to all of us--at least those of us in late youth. But don't we have reason to believe that in the coming decades there will be more of a community approach to health problems? What has happened in mental health programs around the country is an example. We teach community mental health, but do we get involved in our teaching, in community aspects that would have real meaning to students after they graduate?

Rationale

I would guess that most of you might agree with me that a logical step is to ask why we think rationale would be good to develop. Will this experience fit in with the educational objectives and expected behavior? If not, can we tailor it to meet our educational needs? The process involves looking at your philosophy as well as the objectives and the expected characteristics of the graduate of your program.

Our rationale for "Saturation 93" developed in this way. We asked our students, "When is a problem a public health problem?" Our expected answer was "A problem

---

Bernita M. Satchell, R.N., is Assistant Professor, College of Nursing at Arizona State University, Tempe, Arizona.

is a public health problem when it takes community action to solve or alleviate." If we believe this, and this is so, then why not expose students, or better still, let students become involved, because as a graduate nurse and as a citizen, she will be expected to be involved? Further support of the idea materialized when we realized that students could apply the concept of "levels of prevention." One of the basic philosophical concepts around which we build content is "levels of prevention and maximizing high-level wellness."

We believe that knowledge of and experience in tuberculosis are still essential content in nursing today. Tuberculosis is still a problem in this country and in many nations of the world. We do not provide hospital or sanatorium experience for students; yet some believe that students get excellent experience in this field--the kind of knowledge and experience that they can put to practice in all areas of nursing. We battled this belief for some time. Some of us felt strongly about the necessity for hospital experience in tuberculosis nursing. Our medical-surgical faculty did not feel it was necessary. I am convinced now that it is not necessary, because we have every student work intensively, over the period of two semesters, with a family that has a member with tuberculosis in or out of the hospital. Our rationale is that the student will learn more of the things she needs to know about tuberculosis by working with the family and with contacts in the community than she would in a short hospital experience.

Much of the care of the tuberculosis patient in the hospital is the same as that given any patient with a long-term illness, and it involves principles and practices utilized in such care. In the community, the nurse should be able to learn about casefinding, skin-testing, follow-up care, outpatient care, control measures, individual and community health education, community resources, et cetera. In other words, she should be able to answer questions intelligently and intervene appropriately for tuberculosis control whether she works in a doctor's office, a hospital, an occupational health setting, or a school. This, we believe, she can learn in the community.

When you are satisfied with your rationale, there are some essential steps to be taken in the development of the experience.

Essential Steps

1. Faculty must have agreement about offering the experience.
2. Faculty must be flexible--in time and variations for individual groups of students.
3. Faculty must be involved and available.
4. There must be early involvement in the planning stage of the program; for example, meeting with many disciplines, communication, delineating tasks. This proved most interesting to students and provided them with considerable learning opportunities.
5. Plans must be communicated to students clearly. If all cannot be there, one must make plans for sharing.
6. There ought to be follow-up conferences with:
   a. Students (much learning takes place here).
   b. Other faculty.
   c. Other disciplines, or agencies (for evaluation).

Advantages of Involvement in a Community Action Program

1. Seeing and being involved in community group planning and action (leadership, group dynamics, communication).
2. Working with a health team, including many disciplines (professional and nonprofessional).

3. Working with volunteers (recruitment and training).
4. Health education opportunities at every step (individual and group mass-media education).
5. Seeing and coping with cultural and socioeconomic barriers (language, transportation).
6. Opportunities to be creative, innovative, and resourceful, such as planning for and communicating with the old and the young of minority groups.
7. Opportunity to learn about community resources (referrals, continuity of care). Students learned more about how the diagnostic clinic functions. There were also many other community resources involved in the project, such as the Friendly House, the P.T.A., et cetera.
8. The whole school of nursing becoming involved in a sense. Faculty from other areas coming to ask, What's going on?

Possible Resources

1. Tuberculin-testing programs in specific geographic high-risk areas.
2. Tuberculin testing in industry and schools.
3. Immunization program for the public, such as "Sabin Sundays."
4. Programs for migrant workers, especially health education for individuals and groups. This is a possibility for us in our area because we have a Migrant Health Program. It has potential for student meetings and participation in health teaching, such as Mothers' classes, nutrition demonstrations, using surplus commodities.
5. Alcoholism programs. (I believe there is potential here in our community, for example, the Hope Mission.)
6. Headstart programs. Presently, many health departments are involved in medical examinations and/or in follow-up on health problems of youngsters in Headstart programs. Presently, we are making plans for a group of senior students to be involved in the orientation of a group of teachers in a Headstart program to the health problems and the health needs of the children they teach. This is a large Headstart program that was developed in the community even before there was federal funding for such a program. The program also provides a day care center, which is located in the inner city and takes care of about 110 pre-schoolers, aged 3-5. They are children of working Negro and Mexican families and/or of families who cannot provide adequately for their children. Students and instructors will be involved in planning and carrying out this work, and, perhaps, they can follow-up on the families of some of these children.

Disadvantages and Problems

1. Timing and student readiness. The educational opportunity may not present itself when students are most ready. "Saturation 93" came at a time that was just right for us. It served as a culminating experience for students. We believed that students needed to know the pathophysiology of tuberculosis, the immunological reactions that take place in tuberculin testing, and something about treatment. They could learn more about the control measures in the program. The faculty needs to make this decision. One could raise many questions here. For example, Freshman students could participate if it were an observational experience; however, most of us might agree that observational experience should not be dished out too casually. Is the time and travel really being used for the best learning? Sometimes, even a library period may be better. On the other hand, sometimes we wait too long to get students into the community.

2. All students may not have the same experience. Some projects or programs are longer than others; some might be quite limited in size. Should you take advantage of this experience for a small number of students? If so, which students? Again, I think you may need some faculty decisions here. My own feeling is that students can be very flexible--they can share if given the opportunity to share, to discuss, and to evaluate learning. Special experiences can also be made optional. This has some obvious advantages. The "eager beavers" will want to do this, and perhaps those most ready. However, this provides built-in evaluation criteria. That is, a student who seeks additional experience and does it well should have recognition for it.
3. Travel. One must consider travel time and cost, especially if clinical practice is limited to certain hours and days each week. Is it feasible to travel a considerable distance? Who will pay for the travel?

This past year a program similar to "Saturation 93" was being planned for Tolleson, Arizona. Tolleson is about 30 miles from the college and has a high Mexican migrant and farm population. I was interested and did some exploring; however, the faculty decided that travel time would be prohibitive, so we did not get involved. I was never quite satisfied with this decision and believe that we should have made it optional because we did have students who said later that they would not have minded the travel and would have used their own time to be involved. However, this program was eventually limited to schools, so it was not the same as "Saturation 93."

Next February, we will have students involved again, this time in a Mantoux testing program of selected school children in a three-year project.

I have summarized some of my beliefs about involvement in community problems. There are advantages and disadvantages. There are many possibilities. I know there is a great deal that could be added to what I have said. I will be interested in hearing your thoughts. For more detailed information about "Saturation 93," I refer you to a summary prepared by the Maricopa County Tuberculosis and Health Association.

NURSING ROUNDS

A Method of Using the Patient As a Resource in Teaching

Virginia C. Dericks

A great variety of teaching resources are available to educators today. Selecting those that will help students to learn nursing, and at the same time give them a glimpse into the satisfactions that can be enjoyed in their chosen profession, is the aim of every nursing instructor at this conference.

Dr. Flitter has shown us how machines can be used to aid in the teaching of nursing. Mrs. Satchell has explained how a community problem can be brought into the classroom and analyzed there to reveal a wide spectrum of learning experiences. My topic concerns a teaching method wherein the patient and his major nursing problems are presented and discussed before a group of professional nurses and nursing students. This method, which we call Nursing Rounds, has been used successfully at the Cornell University-New York Hospital Medical Center for about 15 years. It has remained in existence for this length of time probably for these reasons:

1. It is patient-centered.
2. It cuts across the various specialties in nursing.
3. It has appeal for students and graduate nurses at various levels of competence and understanding.

To my knowledge, this type of clinical conference for nurses is not widely used in schools of nursing or in nursing service structures. For this reason I would like to tell you of our experience with it.

The idea for Nursing Rounds had its beginning in the early 1950's during a discussion of the Central Committee on Staff Education. This group pondered the reasons why staff education programs presented by nurses, including faculty, were so poorly attended. (In those years our faculty had dual positions and were responsible for staff education as well as the student program.) It was suggested that perhaps the nursing faculty needed additional experience in organizing the material to be presented and in speaking extemporaneously before a large professional audience that included their peers. The pattern used by the physicians for Medical Grand Rounds was discussed, and comments were made about how well they were attended.

The possibility of our doing something like this was considered, and it was suggested that we begin this activity in four nursing departments--surgery, medicine, operating room, and outpatient, since it was in these four departments that senior students were then assigned. The dean of our school (at that time, Miss Virginia Dunbar) then proposed to have these rounds conducted as regularly scheduled activities in the medical center, which would combine student and faculty participation for the solution of problems in a manner similar to that used in Medical Grand Rounds. For our purpose then, this meant that our nursing faculty and students (and later nursing service personnel) would meet

---

Virginia Dericks is Clinical Nursing Specialist, Department of Surgical Nursing, New York Hospital-Cornell Medical Center, New York.

together regularly in the same room for the purpose of presenting and discussing a nursing problem or some topic of current interest to professional nurses. After endorsement of this idea by the nursing faculty, an ad hoc committee was appointed in September, 1951, to develop this further.

The next step was to review the objectives of Medical Grand Rounds with one of the professors of medicine. We learned that the objectives were:

1. The learning and the professional development of the attending medical personnel.
2. The improvement in patient care through the sharing of ideas and information on specific medical care problems.
3. The development of skill in organizing material and speaking before a group on the part of the medical students and residents.

These seemed suitable objectives to us as a beginning for our proposed venture.

After establishing the objectives, decisions regarding the practical aspects of conducting the rounds needed to be made. How often should they be held? Who should assume leadership? Which students should participate? Where could the time be found to make their attendance possible? What should be discussed? To what extent should the faculty be involved?

It was decided to schedule these sessions on a monthly basis and to alternate the responsibility for conducting them among the faculty representing the four clinical areas to which students were assigned. Senior students would be the first scheduled to attend as part of their clinical assignment. Although there would be ample opportunity for student presentation and participation, the primary responsibility for conducting the rounds would be the faculty's. It was agreed that a major goal was to encourage discussion on the part of faculty who represented different areas of specialization. Accordingly, certain persons would be notified in advance when a specific contribution was desired, but all faculty and students present were to be ready and willing to participate spontaneously. It was recognized that this might be difficult to get started, for it is easier to lecture, to demonstrate, and to conduct seminars with students than to think out loud and speak spontaneously in front of one's colleagues and one's students. However, since one objective was to develop this skill, this became a source of motivation for many. It was our hope that this program would expand to include all faculty and students and that eventually this activity would be attended by staff nurses and supervisory personnel in nursing service. It was our further hope that it would lead to better and more unified nursing care throughout the Center and that resourcefulness in devising new ways to meet specific nursing problems would evolve.

Throughout the first year and continuing thereafter, progress toward our objectives was reviewed at appropriate intervals. It was recognized that some of the rounds were excellent, some mediocre, and a couple rather poor. But in those that turned out well, we began to develop role models that met our objectives.

The aims were demonstrated, for example, in one of the rounds presented in the first year. The subject was the care of a small child who had had a pelvic exenteration and was currently being hospitalized in the adult Department of Urology. The surgical nursing faculty took primary responsibility for this presentation. Lively discussion centered around the pros and cons of irrigating the colostomy of this child and the psychological implications relative to the child's growth and development. It was revealed during the discussion that it was the policy of the Department of Pediatrics never to irrigate colostomies. It was also revealed that school-age children with colostomies,

who were followed up on in the pediatric clinic, were also not being irrigated. It was necessary for the mother to go to the child's school at intervals during the day to change the dressing. (This was in the days before disposable adherent bags were used.) The conclusions reached at this conference were referred to the medical staff in the children's clinic, who agreed that the psychological trauma of irrigating a colostomy using a simplified method, and especially if it could be regulated, was much less serious than the implications attendant upon changing dressings at frequent intervals during school hours. As a result, the instructions to parents of school children with colostomies were subsequently changed.

Another example of meeting our objectives was a session conducted by the medical nursing faculty that dealt with a patient who had an abscess following intramuscular injections. Extensive review was made on abscess formation in relation to such matters as pinching the skin versus flattening it out. It was noted that gluteal infections occurring around that time were often found in women with a great deal of adipose tissue. Discussion focused for a time on the susceptibility of various tissues to infection, especially adipose tissue versus muscle. The pros and cons of intramusculars given in the buttocks and in other locations were discussed, with the conclusion that, particularly for the incontinent patient, the injection into the thigh should be more generally used. This led to a further dispute of the pros and cons of various needle lengths and possible technics for injecting a medication. (One must remember this was in the days of frequent injections of antibiotics into the buttocks. The advisability of using the ventrogluteal fold as a popular site was not yet recognized.)

Over a 15-year period we have naturally made a number of changes in the manner in which rounds are conducted. In the beginning, one hour seemed long enough for a presentation of this kind. But with larger audiences and fuller participation by people who, with the help of microphones, began to express their convictions and contribute pertinent information, we found it advantageous to meet for two-hour sessions. The composition of the committee responsible for rounds was also changed. Rather than have representatives only from the departments where students were assigned, a work committee of the faculty was appointed, of which I was chairman, that provided a wider cross section of nursing interests and specialties.

As time went on we acquired greater sophistication and selected a wider range of topics, many controversial; and with added time we were able to explore them in increasing depth. Some rounds capitalized on an outstanding program of care that had been developed at our Center, while others provided a greater awareness of the comprehensive theory that students were acquiring in the basic curriculum. Some rounds provided insight into community health problems and greater awareness of local agencies equipped to deal with them, while others reflected the changing emphasis in nursing and nursing education today.

A partial list of these topics has been distributed, and if you look at it, you can get an idea of the type and scope of the problems we discussed.

Later on we invited resource persons from the community to participate. The invitations depended on the topic. For example, in the rounds on "Deafness and Hard of Hearing," we invited the school nurse from the Lexington School for the Deaf, who brought with her several deaf children and demonstrated their skill in communicating. For that session we also invited a representative from the New York League for Hard of Hearing, who gave us helpful suggestions regarding the use of hearing aids. Public health nurses from local agencies were invited and, having attended once, asked to come regularly, offering valuable contributions from their field of experience. So eventually there was great variety and flexibility in these programs.

Because of the extensive preparation necessary for rounds and because of the additional hour in length, the frequency was changed from one monthly presentation during the school year to three, and later to two. Topics were posted in advance, and class schedules permitted nearly all students to attend. A preferred style and format was developed by the committee. At each session the faculty chairman responsible for conducting the rounds introduced the topic and the scheduled participants. Introductory remarks might supply such information as scope of the problem, pertinent statistics, reasons for choosing the topic, et cetera. Then came the presentation of the nursing problem or perhaps the results of a study of a problem, followed by audience participation, i.e., discussion by faculty, students, staff nurses, and resource people from nursing service. Oftentimes a patient was presented in order to illustrate the problem, and in a good number of cases he remained long enough to participate in the ensuing discussion. Near the close of the session the chairman called for time to sum up important points and to draw conclusions. Nearly always, discussion of the topic continued long after rounds were over and was resumed again the next day over coffee or at lunch.

My early experiences with Nursing Rounds occurred when, as a member of the faculty, I was chairman for a good number of years. My involvement with this activity ended in 1962 when I left the Center. Upon my return to the Medical Center in September of 1966, as Clinical Nursing Specialist, I rejoined the committee and participated in the two sessions held in the past year.

Perhaps you might be interested in a description of these last two sessions. The committee thought of a number of possible topics and eventually decided that the problem that seemed to be under most frequent fire was that many nurses doubted the practicality of taking nursing time to write notes on charts and revise nursing care plans. This, of course, implied that they either did not know how to elicit information from patients, or thought it unimportant, or did not have the time. The committee decided that two sessions might be required to deal with this problem. One would highlight interviewing technics applicable to nursing situations, and the other, a sequel, would ask the question whether or not nursing would benefit by developing a formalized system for obtaining information from patients in order to provide consistency and continuity of care.

This is how the rounds were conducted. The first session was entitled, "Interview Technics: Time Enough? Skill Enough?" Three actual nurse-patient situations were role-played by the graduate nurses involved in them and by other nurses playing the parts of patients. The first skit demonstrated how a nurse in a pediatric clinic offers health guidance and reassurance to a new mother while she waits her turn to have the doctor examine her baby for a respiratory ailment. The second skit demonstrated how the nurse in a stat clinic screens large numbers of patients for referral to the proper clinic, taking only a couple of minutes per patient. The third skit demonstrated an open-end interview with a distraught patient who had just had a colostomy and who was manifesting severe anxiety over her probable diagnosis. The demonstrations were followed by discussion and criticism, and it was concluded that interview technics were just as important as other nursing skills and that nurses had an obligation to elicit information from, and give helpful information to, patients.

The second session, the sequel, was entitled "The Nursing History As an Aid to Planning Care." In this, a panel of senior students demonstrated a patient interview, using a format they had developed in one of their courses for taking a nursing history in preparation for writing a plan of care.

Both of these sessions proved to be interesting programs, and I am sure we all left the sessions a good deal more conscious of the many opportunities and methods for screening and giving out information to patients.

Regarding the future of Nursing Rounds, no doubt we will be making changes again. I cannot say at this time what direction it will take next. Some of the current thinking involves answers to questions such as these:

1. Since students now have greater sophistication and are better prepared in the problem-solving approach, should they now assume the leadership for organizing and presenting material before their peers and instructors?
2. Might the local chapter for the National Honor Society of Nursing become involved in this kind of educational activity?
3. In view of an increasing interest in providing good inservice programs and continuing education for graduate nurses at the same time that college students are striving for academic excellence, should there be two separate educational activities--one conducted by Nursing Service and the other by Nursing Education?

These are obviously rhetorical questions. I do not propose to give you the answers.

In this paper I have described a particular method of instruction that is patient-centered and that focuses on the nursing aspects of a problem. It is a method that encourages and inspires nurses and nursing students to improve care through a problem-solving approach. I believe this method can be alive and dynamic, that it has appeal for many, and best of all, that it brings together in thinking, the people in nursing who should be brought together--i.e., faculty, students, staff nurses, resource persons in nursing service, institutional nurses, and public health nurses. I know this method entails hard work and much preparation, but the results seem worthwhile. I am sure there are others here who would like to try this method or some modification of it.

Following are a statement of the purpose and objectives of Nursing Rounds and examples of the topics covered in the rounds from November, 1955, to date at New York Hospital-Cornell Medical Center, New York.

NURSING ROUNDS

The Purpose

Rounds are intended to help students and faculty to think through and discuss unresolved problems of nursing. Involvement of nursing service, however, is considered an important feature also since both nursing education and nursing service are equally interested in discussing and/or solving nursing problems.

The Objectives

1. To provide an opportunity for learning and for the professional development of the faculty, students, and nurse practitioner.
2. To improve patient care through the pooling of thinking of those who attend rounds.
3. To identify and solve current nursing problems.
4. To encourage discussion, following the presentation, by those people with experience in a given specialty.

As accepted by the
faculty in June, 1964.

TOPICS COVERED IN NURSING ROUNDS, 1958 TO DATE*

Date	Topic
1958-59	Team Nursing Caring for the Deaf and Hard of Hearing
1959-60	Addiction: Alcoholic and Narcotic Care of Patient With Musculoskeletal Disability
1960-61	The Nurse's Role in Suicidal Risk Caring for the Blind and Visually Handicapped The Elderly Patient: Problem of Understanding (with focus on self-medication)
1961-62	Aphasia Teen-agers and Venereal Disease Mental Retardation
1962-63	Nursing in Disaster The Baccalaureate Graduate-- (Should first-level positions of baccalaureate graduates in nursing be differentiated from those of diploma graduates?) Patient Needs and Nursing Practice--A Lag?
1963-64	Care of the Patient With an Indwelling Catheter Nurse-Patient Communications
1964-65	Is the Nursing Team Meeting the Needs of the Patient? The American Tundra: Crisis in Aging
1965-66	The Nurse's Role in Extraordinary Measures Care of the Patient With an Organ Transplant
1966-67	The Dying Patient, His Family, and His Nurse The Patient Interview--Time Enough? Skill Enough?
1967-68	The Nursing History--Nursing by Assessment, Not Intuition

*The Committee on Nursing Rounds was responsible for conducting these topics.

TOPICS COVERED IN NURSING ROUNDS, NOVEMBER 1955 THROUGH MAY 1956

Date	Nursing Dept. Responsible	Topic	Description
1955			
Nov. 17	Medicine	Evaluation of Family Assistance in the Care of Patients During Hospitalization	An evaluation of the factors involved in having patients' families assist with their care during hospitalization. Three different situations involving family participation in patient care were discussed by graduate and student nurses from the Depts. of Medicine and Psychiatry, and from the Chronic and Rehabilitation Program.
Dec. 8	Surgery	Care of the Patient With Urinary Incontinence	Interview of young Englishman and middle-aged Italian woman with problems of urinary incontinence. Included demonstration of self-help with urological equipment as taught by nursing staff.
1956			
Jan. 19	Obstetrics	Preparation for Labor and Delivery of a Patient Handicapped by Poliomyelitis	Interview of a pregnant woman with poliomyelitis, followed by panel discussion with participants from the N.Y. Hosp. and the Hosp. for Special Surgery who contributed to the rehabilitation phases of her care before, during, and after delivery.
Feb. 2	Pediatrics	The Advantages of Liberal Visiting Policies	Film entitled "A Two-Year Old Goes to the Hospital," showing the effects of limited visiting privileges on the behavior of a young child, his parents, and personnel caring for the child. Subsequent discussion revolved around the steps taken in liberalizing the visiting privileges in the Dept. of Pediatrics.
Feb. 16	Operating Room	Care of the Patient Undergoing Hypothermia Preparatory for Surgery	Description of equipment used in preparing patients for hypothermia, the physiological responses involved, and the management of patients undergoing this therapy by medical and nursing staffs in the operating and recovery rooms.

TOPICS COVERED IN NURSING ROUNDS, NOVEMBER 1955 THROUGH MAY 1956--Continued

Date	Nursing Dept. Responsible	Topic	Description
Mar. 8	Psychiatry	The Role of the Nurse in Mental Health Education	Conducted in the form of role-playing, depicting typical patient behavior situations in daily living and giving examples of nurse management.
Apr. 5	Outpatient	Home Care Program for Pediatric Patients	Presentation of a program planned for a young child with nephrosis discharged to the Pediatric Home Care Program. The home care team, consisting of the child's mother, a junior physician, a clinic nurse, and a public health nurse, discussed their participation in the program.
May 17	Obstetrics	The Role of the Father in Labor and Childbirth	Panel discussion by five fathers who explained their views on the pros and cons of remaining with their wives during the process of labor and childbirth.
May 24	Medicine	Varying Practices in Isolation Technic	Discussion by student nurse of the problems she encountered in attempting to carry out the approved isolation technic on the various floors where she was assigned. This was followed by comments from Dr. Rogers, Chairman of the committee, to evaluate and revise present New York Hospital isolation procedures.

TOPICS COVERED IN NURSING ROUNDS, NOVEMBER 1956 THROUGH MAY 1957

Date	Nursing Dept. Responsible	Topic
1956		
Nov. 1	Psychiatry	The Importance of Insight Into a Patient's Behavior
Nov. 15	Operating Room	Recognition and Care of the Patient in Shock
Dec. 6	Outpatient	Some Nursing Problems in Navajo-Cornell Field Health Project
1957		
Jan. 17	Medicine	Administration of Hot Packs
Feb. 21	Surgery	Night Nursing
Mar. 7	Pediatrics	Meeting the Spiritual Needs of the Hospitalized Child
Mar. 21	Social Sciences	Understanding the Culture of People from Costa Rica (student project)
Apr. 4	Operating Room	Dealing With Mass Casualties
Apr. 25	Surgery	The Nurse's Role in Caring for Patients With Radical Mastectomy (report of committee's findings)
May 2	Outpatient	Role of the Nurse in Control of Syphilis

TOPICS COVERED IN NURSING ROUNDS, NOVEMBER 1957 THROUGH MAY 1958

Date	Nursing Dept. Responsible	Topic	Description
1957			
Nov. 7	Surgery	The Patient With an Artificial Eye	Discussion of the problems encountered by a person wearing an artificial eye: cost, types available, fitting, and procedure for removal. Demonstration of types of prostheses.
Nov. 21	Outpatient	Public Health Nursing at the Navajo-Cornell Field Project	Description of PHN carried on at the Navajo-Cornell Field Project. Slides and case illustrations included.
Dec. 5	Fundamentals of Nursing	Are Concepts Taught in the Fundamentals Course Too Idealistic for Use in the Practical Setting	Audience participation in arriving at a philosophy that incorporates both education and service in the development of a nurse. Patients interviewed to illustrate basic concepts taught in curriculums.
1958			
Jan. 16	Medicine	New Machines for Old Diseases or If You Can't We'll Do It for You	Description of the artificial kidney machine and procedure for dialysis. Nursing considerations.
Feb. 27	Psychiatry	Your Body Speaks	Role-playing to illustrate how the emotions can speak through behavior symptoms. Case illustration.
Mar. 6	Public Health	Public Health in the Hospital Setting	Presentation of project, consisting of an epidemiological investigation of a hypothetical outbreak of infant diarrhea in the newborn nursery. Student presentation evaluated by instructors in public health, the sciences, and obstetrics.
Mar. 19	Pediatrics	What Do Parents Ask	Panel discussion covering the questions most frequently asked of parents in the Department of Pediatrics. Suggested answers were given.

TOPICS COVERED IN NURSING ROUNDS, NOVEMBER 1957 THROUGH MAY 1958--Continued

Date	Nursing Dept. Responsible	Topic	Description
Apr. 3	Operating Room	The Bug and You	Panel discussion of methods to prevent the transmission of infection in the operating, labor, and recovery rooms. Methods to decrease the bacterial count, permicides, and wound care were discussed.
Apr. 17	Science and Nutrition	The Case of the Flapping Fingers	Case history of a patient with cirrhosis of the liver and discussion of nursing problems. Nutritional requirements, role of alcohol, and use of esophageal balloon.
May 1	Obstetrics	Widening Horizons	Interview of various types of nursing personnel employed in obstetrics, revealing their varied preparation and experience. Role of the professional nurse as leader emphasized.
May 22	Private Patients and Surgery	Care of the Amputee	Slides showing desirable method to bandage a stump, and statistics on number of hospital days, age, and disease of persons requiring amputation. Demonstration of a suitable wheelchair and discussion of psychecult and religious factors. Report on observation of amputee care at Hospital for Special Surgery and discussion of home adaptation.

SUMMARY OF GROUP DISCUSSIONS

A complete picture of states and schools invited and in attendance was given. (See Appendix A.) In preparation for group discussions, two groups of six persons each and one group of five persons were named. Assignment to groups was made on the basis of participants' experience, the major teaching areas, and the schools represented.

The purpose of the group discussions was to give each participant the opportunity to share ideas on resources for teaching. No leaders or recorders were appointed. Every instructor was considered to be a leader, and the choice of a group leader and recorder was left to the group. The leader of each group was asked to accept the responsibility of giving a brief report of the discussion to the entire group. A discussion guide was prepared but was not used. The participants stated that they would rather proceed on their own.

Following are the questions asked and the reports of the three groups. Appendix C lists the members of each discussion group.

Questions for Discussion

1. Review the major factors presented in the content of the several types of resources (programmed instruction, community project, nursing rounds).
   a. Which do you consider basic to selection of resources for the instructor's use in teaching?
   b. Which are basic to the instructor's selection of resources for student study?
2. Consider all related components of the resources presented at this conference (content specific to the care of patient and family in regard to respiratory diseases: epidemiology, prevention, control, care, cure, rehabilitation, and social-behavioral elements).
   a. How will this help you to select and develop your own resources for teaching content?
   b. What teaching resources do you use frequently?
   c. What teaching resources are needed to help you in teaching?
3. Knowledge gained through this conference will vary considerably for each individual, but each person through her participation adds both to her own knowledge as well as to that of all the other participants.
   a. How do you plan to share knowledge gained through this conference with other faculty associates?
   b. How do you plan to share this knowledge with students?

Group I Report

1. Programmed Instruction.
   a. Experience with this resource.
      (1) Use of this resource is time-consuming because of need to pre-test, work with students, and post-test.
      (2) Used with little or no preparation and evaluation.
      (3) Demonstrated student learning by use of pre-test and post-test.

(4) Used with one-half of class taught in traditional manner, and one-half of class with programmed instruction:
   (a) Students using programmed instruction did as well.
   (b) Students asked for conference time with instructor.
(5) When programmed math was used, there were good results on post-test printed in the book. When test was altered in content but not meaning, the results were not as good. Another group in the same situation produced no significant results.

b. Advantages and disadvantages of various types.
   (1) Scrambled type is good for reinforcement of learning for students.
   (2) Scrambled program often required use of other sources.
   (3) Programmed instruction is an aide to instructors.

c. Areas for programming.
   (1) Fundamentals of nursing.
   (2) Pathophysiology.
   (3) Fluid and electrolytes.
   (4) Hypersensitivity.

2. Nursing Rounds.

a. Usefulness of resource to group members.
   (1) Program for staff and student education.
   (2) Based on patient in the hospital. The patient who is communicative could be used. Some students could care for the patient, and various aspects of care could be considered and illustrated. The group considered the patient who is noncommunicative and concluded that this person could be used for higher level experience.
   (3) Tape recordings of interviews with patients during the progression of experience with student. These would be shared with class for analysis of content. The group discussed difficulties that might be encountered, such as agency or patient not accepting the tape recorder.
   (4) Rounds are of importance to promote communication between nurses.
   (5) Clinical conferences with small groups of students may use patient to illustrate theory and to analyze patient care.

3. Student Evaluation.

a. Use of patient in evaluation. The patient might be used with other sources to help evaluate.
b. One participant discussed student self-evaluation and individual evaluations in a group setting. Students received grades that they thought they had earned. Instructor had written evaluation prior to session. Results were the same.

Group II Report

1. Programmed Instruction.

a. Programmed instruction needs to be followed with a period of practice for reinforcement.
b. Programmed instruction could be used in the audio-visual aid laboratory with the instructor as a reference person.

c. Stimulation and maintenance of motivation in the use of programmed instruction were discussed. Programmed instruction could be used as a part of independent study. Students need motivation to carry on self-education as graduates.
d. Teacher-student time needs to be most effectively and efficiently used. Questions posed were: How can programmed instruction be used more effectively? Where should programmed instruction be used? How should the use of programmed instruction be reinforced?

2. Health Policy for Student Nurses in High-Risk Areas.

Mrs. Satchell. Discussion centered on health policy for student nurses in high-risk areas. College health standards enter as one factor. One school reported that the students have a chest X ray once a year. Brief discussion centered on use of BCG and health preparation for student nurses prior to public health nursing.

3. Content of Tuberculosis Nursing.

Miss Johnson. Discussion centered on the time and placement of tuberculosis nursing within a curriculum. The topic could be taught in a variety of courses, such as medical-surgical nursing, public health nursing, long-term chronic disease nursing, or outpatient services.

The group felt that there was a need for understanding attitudes about tuberculosis. Factors involved were:

(1) Availability of community and university center facilities.
(2) Programmed instruction to include medical asepsis, and quality and quantity of clinical experience.
(3) Total patient care to provide opportunities for teaching, assisting self-growth, clinical practice.
(4) Use of the film The Special Universe of Walter Krolik as a resource.
(5) Changing treatment of tuberculosis to include chemotherapy; treatment of patients in general hospitals, in clinics, and in the home; family-centered concept of OPD as opposed to specialty clinics.
(6) Continuity of care to demonstrate preparation of home situations for discharge of patient.
(7) Patient teaching to demonstrate need for educational psychology.
(8) Use of staff nurse as role model for student in patient teaching.

4. Discussion of Student: Teacher Relationships With Varying Levels of Student Learning.

The group felt that the book Exchange of Ideas was most helpful.

Group III Report

1. Curriculum Discussion.

a. South Dakota University.
(1) Sophomore year.
(a) Public health nursing is introduced in the Sophomore year. Clinical practice takes place all of Senior year.
(2) Junior year.
(a) Nursing of adults and children is conducted by means of weekly conferences

with all students and instructors. Clinical assignments are given in various hospitals to patients (either child or adult) with same pathology.
(b) Psychiatric and obstetric nursing are taught concurrently.
(c) Seminar in sociology is taught while students are enrolled in abovementioned courses.

b. University of Missouri.
(1) Sophomore year.
(a) Introduction to public health nursing, medical-surgical nursing.
(2) Junior year.
(a) Obstetric nursing.
(b) Pediatric nursing.
(3) Senior year.
(a) Senior nursing.
(b) Public health nursing.
(1) In St. Paul, on KTCA-TV, Channel 2, pharmacology kinescopes are available for rental. There is a rental fee.
(2) On Channel 2, from Chicago, video tapes are available for 18 schools to use.
(3) Single-concept films are shown to groups and individuals.

c. Capital University.
(1) Freshman year.
(a) Liberal arts.
(2) Sophomore year.
(a) Medical-surgical nursing.
(b) Human relationships course.
(3) Junior year.
(a) Maternal and child health nursing.
(b) Psychiatric nursing.
(c) Long-term illness nursing.
(4) Senior year.
(a) Public health nursing.
(b) Senior nursing.

d. University of Cincinnati.
(1) Freshman year.
(a) Liberal arts.
(2) Sophomore year.
(a) Fundamentals of nursing.
(b) Medical-surgical nursing.
(3) Junior year.
(a) Medical-surgical nursing.
(4) Senior year.
(a) Medical-surgical nursing.
(b) Public health nursing.

The faculty is working on complete curriculum revision.

CONFERENCE EVALUATIONS

Evaluation Questionnaire

1. What was your purpose in attending this conference?
2. Did you achieve your purpose?
3. Comments on the conference.
   a. Content.
   b. Speakers.
   c. General form.
   d. Other.
4. Suggestions for future conferences.

Verbal Evaluation

Each of the participants was asked to evaluate the conference by completing the questionnaire and to discuss briefly her thoughts on the conference.

General expressions of the group were that this was indeed a helpful conference. For some of the participants this was their first opportunity to meet with other faculty members from such a wide geographic distribution of schools.

All were in favor of continuing this kind of conference.

Written Evaluation

1. What was your purpose in attending this conference?
   a. To improve present methods of teaching through discussion of resources presented.
   b. To learn of new methods, resources, and trends in collegiate nursing programs.
   c. To learn of new uses for old ideas.
   d. To gain stimulation and new ideas in order to use resources present but not yet utilized in our setting.
   e. To gain and share new ideas for implementing teaching plans. To learn more about programmed instruction and teaching rounds.
   f. To learn of sources of new materials, exchange ideas, and contribute my own ideas.
   g. To glean ideas for construction of new tools.
   h. To become more aware of available resources for teaching nursing.
   i. To gain a better understanding of the utilization of resources for teaching.
   j. To exchange ideas with instructors from various nursing programs in various sections of the country.

2. Did you achieve your purpose?
   a. Yes. The discussion was stimulating and the experience was thought-provoking.
   b. Yes. While the resources presented were not unusual, the presentations were excellent.
   c. Yes. Better insight was gained as to possible solutions of some problems in teaching.

d. Yes. I have a greater understanding of the use of programmed instruction, and I can see that we all use similar methods in modification.
e. Yes. I feel sincerely stimulated to review objectives and to try to develop a pre-test for programmed instruction.
f. Generally, yes. I have gleaned several tangible resources that I will attempt.
g. Yes. I am anxious to share experiences with the faculty for new ideas in order to implement some.
h. Definitely. Many resources that seem useful may be implemented after more thinking.

3. Comments on the conference.
   a. Content.
      (1) Appreciated the opportunity to review material prior to conference.
      (2) Stimulated discussion by conference participants.
      (3) Diverse and full of adaptable material.
      (4) Good selection of three methods.
      (5) Worthwhile and practical.
      (6) Helpful as a "motivator."
      (7) Well selected and presented.

   b. Speakers.
      (1) Practical because they discussed problems common to most.
      (2) Qualified for presentations.
      (3) Available for sharing information.
      (4) Honest and open-minded.
      (5) Eager to be of assistance.
      (6) Excellent in preparation, delivery, and enthusiasm.
      (7) Felt warmth and personal involvement.

   c. General form.
      (1) Very good.
      (2) General and specific ideas presented by the experts, which could be discussed in small groups.
      (3) Free to exchange ideas.
      (4) Discussion after each speech helped to clarify many points.
      (5) Well planned.
      (6) Speakers set us thinking and prepared the way for discussing and sharing.
      (7) Time of presentation good.
      (8) Impressed with organization.

   d. Other.
      (1) Plan for early meeting of participants.
      (2) Adherence to the time schedule was most appreciated.
      (3) Look forward to another such conference.
      (4) Keeping the total group limited in size was a super idea for sharing.
      (5) From members of the group gleaned many ideas to try.
      (6) Exchange of ideas with others most rewarding.

4. Suggestions for future conferences.
   a. Earlier assignments to groups.

b. Video tape programming.
c. Methods for student evaluation.
d. Continue with innovations and resources for teaching.
e. Longer period of time for discussion.
f. Preparation for instructors to utilize new resources.
g. Curriculum planning and implementation.
h. Approaches to improve nursing care.

APPENDIX A. REPRESENTATION OF NLN-ACCREDITED PROGRAMS BY STATES IN THE REGION

State	No. of Programs in Region	No. of Programs Represented
Illinois	6	3
Indiana	4	1
Iowa	1	1
Kansas	1	1
Kentucky	3	3
Michigan	4	
Minnesota	6	
Missouri	5	1
Nebraska	3	
North Dakota	i	
Ohio	6	4
South Dakota	1	1
Wisconsin	3	
	44	15

APPENDIX B. PROFILE OF PARTICIPANTS

Major Teaching Area	Number of Faculty	
Medical-surgical nursing	11	
Public health nursing	2	
Critical nursing problems	1	
Nursing care of patients with chronic and/or long-term illness	1	
Nursing of children	1	
Community nursing	1	
Educational Preparation		
Bachelor of Science	2	
Completing Masters in Nursing	1	
Master of Science	7	
Masters in Education	3	
Master of Science Nursing Education	2	
Masters of Science Nursing	1	
Masters in Public Health	1	
Professional Experience		
Staff nurse*	15	
Assistant head nurse	2	
Head nurse	3	
School nurse	2	
Clinical nurse	1	
Consultant	3	
Supervisor*	3	
Assistant instructor	3	
Instructor	14	Range of experience: beginning to 5 years
Assistant professor	6	Range of experience: 1 to 7 years

*Some participants had had staff experiences in both hospitals and public health.

APPENDIX C. MEMBERS OF DISCUSSION GROUPS

Group I

Sister Rosemary Chu
College of Mount St. Joseph on the Ohio
Mount St. Joseph, Ohio

Mrs. Sandra Earnest
University of Evansville
Evansville, Indiana

Mrs. Carolyn Paynter
Berea College
Berea, Kentucky

Barbara Reitz
Loyola University
Chicago, Illinois

Shirley M. Veith
University of Iowa
Iowa City, Iowa

Mrs. Barbara Weaver
Capital University
Columbus, Ohio

Group II

Mrs. Charlotte Ebersole
Ohio State University
Columbus, Ohio

Mae Frazier
University of Kentucky
College of Nursing
Lexington, Kentucky

Mary Louise Gunning
St. Xavier College
School of Nursing
Chicago, Illinois

Carolyn Herrington
Department of Nursing Education
University of Kansas School of Medicine
Kansas City, Kansas

Gloria Smokvina
University of Evansville
Evansville, Indiana

Group III

Mrs. Marian Frerichs
Northern Illinois University
DeKalb, Illinois

Phyllis M. Lee
South Dakota State University
Brookings, South Dakota

Mrs. Inez Moore
Capital University
Columbus, Ohio

Mrs. Alice Mudwilder
Catherine Spalding College
Louisville, Kentucky

Mrs. Margaret Mullins
College of Nursing and Health
University of Cincinnati
Cincinnati, Ohio

Mrs. Doris J. Sauer
University of Missouri
Columbia, Missouri